

Application No.: 10/028,978

Docket No.: 21994-00036-US

REMARKS

In view of the above amendment, applicant believes the pending application is in condition for allowance.

The Examiner has objected to claims 7 and 10 because of several informalities. In order to overcome this objection, Applicant has amended claims 7 and 10 in order to correct the deficiencies pointed out by the Examiner. Reconsideration and withdrawal of this objection are respectfully requested.

Claims 1-4 and 6 are rejected under 35 U.S.C. § 103(a) as obvious of Ohgo (US 6,269,072) in view of Takeda et al. (US 6,512,735, hereinafter Takeda) and further in view of Maeda et al. (US 6,069,870). Claim 4 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Ohgo in view of Takeda and further in view of Maeda as applied to claim 2 above, and further in view of Misawa et al. (U.S. 5,948,593). Claim 5 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Ohgo in view of Takeda and further in view of Maeda as applied to claim 2, and further in view of Watanabe et al. (US 4,651,172). Claim 7 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Ohgo in view of Takeda and further in view of Maeda and further in view of Yamamoto et al. (US 6,721,259). Claim 8 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Ohgo in view of Takeda and further in view of Maeda and further in view of Yamamoto as applied to claim 7, and further in view of Tsukibashi (US 6,496,458). Claim 9 is rejected under 35 U.S.C. § 103(a) as being unpatentable of Ohgo in view of Takeda and further in view of Maeda in further view of Yamamoto and in further view of Tsukibashi. Claims 10-13 and 15 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Ohgo in view of Takeda and further in view of Tanase et al. (US 6,240,056) and further in view of Abe et al. (US 6,381,208). Claim 13 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Ohgo in view of Takeda and further in view of Tanase and further in view of Abe as applied to claim 11, and further in view of Misawa et al. Claim 14 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Ohgo in view of Takeda and further in view of Tanase and further in view of Ave as applied to claim 2, and further in view of Watanabe et al.

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Claim 16 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Ohgo in view of Takeda and further in view of Yamamoto. Claim 17 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Ohgo in view of Takeda and further in view of Yamamoto as applied to claim 7, and further in view of Tsukihashi. Claim 18 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Ohgo in view of Takeda in further view of Yamamoto and further in view of Tsukihashi.

A major feature of the present invention relates to an information recording medium composed of a recording layer and a light transmission layer laminated on a substrate, which is provided with groove and land sections formed alternatively in parallel (see claim 1 and page 11, line 21 to page 12, line 1). The recording layer satisfies a relation of $P < \lambda / NA$ (see page 18 paragraph number [0025]). A thickness of the light transmission layer is within a range of 0.070 to 0.120 mm (see page 16, lines 21-28).

Further, the land section is wobbled in the radial direction by a superimposed wave obtained by superimposing a single frequency wave having a frequency of integral multiples or one over integral multiples of a frequency of a phase modulated wave on the phase modulated wave (see paragraph numbers [0067], [0079] to [0087] in pages 38-39, 44-48).

Furthermore, another feature of the present invention relates to scattering of thickness of the light transmission layer to within a range of ± 0.002 mm while its thickness is within the range of 0.070 to 0.120 mm (see page 17, lines 5-6).

Regarding the prior art, Maeda (US 6,069,870) teaches that Address information 13 on the track 270 is recorded by wobbling borders 14 and 15 of the track 270 with different wobbling waveforms (Fig. 27, Col. 6, lines 56-62 and Col. 7, lines 22-26). However, Maeda fails to disclose that the wobbling waveforms are superimposed by any other waveform. Accordingly, the wobbling waveform of Maeda is completely different from the wobbling of a land section of the present invention.

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Both Ohgo (US 6,269,072) or Takeda (US 6,512,735) fail to disclose that the land section is wobbled in the radial direction by the method of phase modulation. Accordingly, the present invention is not anticipated by any of Ohgo, Takeda and Maeda, nor by combining any of them.

Further, in the case of Tanase et al. (US 6,240,056), Tanase teaches that protection film 62 formed of ZnS-SiO₂ has a film thickness of 200 nm (tolerance error ± 10 nm) (Col. 7, lines 23-32). These numerals are equivalent to 0.0002 mm (200 nm = 2×10^{-4} mm) and 0.00001 mm (10 nm = 1×10^{-5} mm) respectively, in case these numerical unit of "nm (nanometer)" is converted into "mm (millimeter)" according to the present invention. Accordingly, these numerical limits are extremely different from those of the present invention.

Abe et al. (US 6,381,208) teaches that light transmitting layer having uneven thickness results in increased spherical aberration (Col. 2, lines 24-29). However, neither Abe nor Ohgo discloses that scattering of thickness of the light transmitting layer is within the range of ± 0.002 mm. Consequently, the range of ± 0.002 mm for scattering of thickness according to the present invention is never anticipated by Ohgo in view of Takase and Abe.

The cited tertiary references to Watanabe, Yamamoto, Tsukihashi, and Tanase have limited relevant teachings that fail to create valid obviousness rejections under Section 103 with their respective primary and secondary references.

Notwithstanding the inadequacies of the cited references as compared to the invention, applicant has amended claims 1, 7 and 9 in order to clarify the differences between the present invention and the cited prior art.

In view of the above, consideration and allowance are, therefore, respectfully solicited.

In the event the Examiner believes an interview might serve to advance the prosecution of this application in any way, the undersigned attorney is available at the telephone number noted below.

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The Director is hereby authorized to charge any fees, or credit any overpayment, associated with this communication, including any extension fees, to CBLH Deposit Account No. 22-0185, under Order No. 21994-00036-US from which the undersigned is authorized to draw.

Dated:

4/8/05

Respectfully submitted,

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